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For those interested in Homemaking, Institution Management, and Educational Work in Home Economics

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CONTENTS

FRONTISPIECE, "DINNER GUESTS"
MENUS OF THE ANCIENT ROMAN WORLD . . . . . *Cornelia G. Harcum* 343
SOME EXPERIMENTS WITH WHEAT SUBSTITUTES . . . . . *Cora E. Gray* 348
THE TEACHING OF FOOD VALUES IN THE ELEMENTARY SCHOOLS . . . . . *Rosa Biery* 353
AN ECONOMY SUGAR BOWL 357
HOME PROJECT WORK IN VOCATIONAL HOME ECONOMICS IN SECONDARY SCHOOLS . . *Maude Gregory Adams* 358
CONSERVATION AND THE FOOD BUDGET . . . . . *Jean Krueger* 363
HOME ECONOMICS IN THE PUBLIC SCHOOLS UNDER WAR CONDITIONS . . . . *Alice A. Johnson* 369
WHY EAT FOOD? 370
FOR THE HOMEMAKER
CHANGING A PEACE TIME RATION FOR WAR TIME . . . . . *Caroline L. Hunt* 371
POINTS IN SELECTING MEALS . . . . . *Flora Rose* 374
SALVAGING FOOD CONTAINERS . . . . . *Katherine Wicker* 377
A WHEATLESS LOAF 378
SHALL WE BUY MILK OR CREAM? 379
ANOTHER METHOD OF STERILIZING GLASSWARE 379
EDITORIAL 380
BOOKS AND LITERATURE 383
BIBLIOGRAPHY OF HOME ECONOMICS 385
NEWS FROM THE FIELD 387

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DINNER GUESTS

At my plentiful table I had grown
Quite accustomed to dine alone.
To-day came guests to sit with me:
England, France, and Italy.

I welcomed them to my repast,
And begged they break their war-time fast.
To France I served my bread of wheat,
To England I served my roast of meat,
To Italy my toothsome sweet,
And, oh, it was good to see them eat!

We drank a health in the wine of cheer,
And I must confess—though I own it queer—
That I had not known for many a year
A heart so light and a head so clear.
And now each day they dine with me,
My comrades, friends, and allies three.

With France I share my bread of wheat,
With England I share my roast of meat,
With Italy my toothsome sweet,
And, oh, it is good to know they eat!

A savory soup and a dish of rice
I find sufficient and very nice.

MABEL KINGSLEY RICHARDSON.

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MENUS OF THE ANCIENT ROMAN WORLD

CORNELIA G. HARCUM

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At the present time, when so much thought is being devoted to the making of menus, it may be interesting at least to look back a few centuries and consider those of the ancient Romans who were truly masters in the art of dining. For the average person it may be instructive as well, for the majority of writers on the subject of Roman meals have devoted themselves almost exclusively to the exaggerated side of Roman luxury. They have concerned themselves, to a great extent, with dishes composed of singing birds, nightingales' tongues, or peacocks' brains, and draughts of liquid pearls, or with the fanciful concoctions which were served at the dinner of a Trimalchio or a Nasidienus. The result is that the modern idea of the life of the ancient Romans is all too frequently represented by the ditty which begins,

Old Lucullus, they say,
Forty cooks had each day,
And Vitellius' meals cost a million.

We must remember, however, that this represents only one side of the life of the ancient Romans; that their menus were quite as varied as our own; that the peasants in Italy, then as now, lived largely on the produce of their gardens; and that even in the days of the Empire the diet of many of the Romans was largely vegetarian. Indeed so simple was the fare of the early Romans that the substance of their meals consisted frequently of a kind of porridge called pulse which was served

in an earthen bowl. Vegetables were chopped fine and added to this mixture which preceded even bread as an article of diet. Roman authors represent Romulus as being so simple in his tastes that he preferred a dinner of vegetables, even when he had ascended into the heavens.

The following are a few of the many menus of various kinds which may be culled from the pages of Latin authors.

Shepherd's evening meal: Mellow apples, mealy chestnuts, abundance of cheese.

Slaves' banquet: Nuts, olives, beans, figs, lupine.

Farmer's daily meal: Vegetables, flitch of smoked bacon.

Farmer's meal on festal days: chicken or kid, raisins from the string, nuts, figs, wine.

Dinner served by peasants to distinguished guests: ripe and green olives, pickled cornel berries, endive, cheese, eggs cooked in warm ashes, wine, bacon and cabbage, nuts, dried figs, dates, plums, mellow apples, purple grapes.[1]

An author of imperial days invites a friend to partake of a frugal meal with him and encloses the bill of fare. *Parva est cenula,* says Martial.

Menu: Lettuce, onions, salt tunny fish garnished with eggs, hot cabbage fresh from the garden, small sausages resting on snowy pulse, beans with a streak of fat and streak of lean; and a dessert consisting of raisins, Syrian pears, roasted Neapolitan chestnuts, wine.

In considering the examples of the Roman *cena* it may be interesting to note that a *cena recta,* or formal dinner, regularly consisted of three divisions: the *gustus, cena* proper, and the *mensae secundae.* The *gustus* corresponds to our entrée. Its purpose was to aid the digestion and whet the appetite for the more substantial parts of the meal which were to follow. *Mulsum,* a mixture of honey and wine, was drunk during this course. The second division, the *cena* proper, was very varied in its content and might be divided itself into several courses. The third division, the *mensae secundae,* corresponded to our dessert and always consisted of fresh or dried fruits, nuts, and pastry of various kinds.

Dinner served by Martial to several friends:

[1] Although the scene of the story in which this menu is given is laid in Phrygia, the menu itself is certainly representative of the food of the rustics in Italy in Ovid's day.

Gustus: Mallows, lettuce, onions, mint, fish garnished with eggs, rue, sow's udders swimming in tunny sauce.

Cena proper: kid, croquettes, beans, cabbage sprouts, chicken and ham which have already appeared three times at table.

Mensae secundae: Mellow apples, wine.

Still another menu is given by Martial for what he considers a rather desirable meal.

Gustus: Lettuce, onions, tunny fish garnished with eggs and rue, eggs cooked in warm ashes, cheese, olives from Picenum (the finest variety).

Here endeth the *gustus*, but that his friend may not be tempted to go elsewhere by a more attractive dinner, Martial says, "Do you wish to know the rest of the meal? I shall exaggerate in order to entice you."

Cena proper: Fish, oysters, *sumen* (sow's udder), fowl both wild and tame. The dessert is evidently left to the guest's imagination for Martial stops here.

There were, of course, public dinner parties as well as private. The menu which was served on one such occasion is found in Macrobius. This occasion was an inaugural banquet of a certain Lentulus as priest of Mars. Caesar and several of the Vestal virgins were among the distinguished guests. The menu is very elaborate.

Gustus: Sea urchins, blue points, as many as one desired, mussels, shell fish of other varieties, asparagus, roast chicken, oyster patties, fig-peckers, filet of kid, filet of boar, pâté de volailles grasses, snails from Baiae.

Cena proper: *Sumen* (sow's udder), head of boar, pâté de poisson, duck, roast teal, hare, roast fowl.

It seems that a part of this menu may be missing for the *cena* proper scarcely seems in proportion to the *gustus*, and the only dessert which is mentioned is two kinds of pastry.

Memorial banquets were served by the Romans in honor of their dead. One feast of this kind consisted of: Lamb, pork, white bread, salad, onions, two kinds of wine.

Nine days after the funeral *Novendiales feriae* were held. A *cena novendialis* was served at this time. The following is given by Petronius as the menu of a dinner of this kind which was served in honor of a slave: Pork, cheese cake, giblets(?), beets, whole wheat bread, cold tarts, Spanish wine and honey, peas, filberts, an apple apiece, joint of bear's flesh.

It will be noted that this menu is not given in regular order. *Gustus, cena* proper, and dessert are confused in a rather hopeless way. This confusion is due to the tipsy condition of the guest who reports that he was present.

A strange custom at certain dinner parties of Roman Imperial days, and one which is foreign to all our ideas of good taste, was the serving of a double menu. This custom originated in the degradation of what was once the mutually self respecting relationship of patron and client. At dinners of this kind the host and his distinguished guests dined on the finest of food, while the client though reclining at the same table partook of a less desirable variety. The two best examples of the double menu are found in Martial and Juvenal. In Martial the client complains, "As I am invited to dine with you why is not the same menu served to me as to you?"

Host's menu	*Client's menu*
Oysters from the Lucrine Lake	Mussels of an inferior sort
Mushrooms of the finest	Toad stools fit for a pig
Turbot	Cheap fish
Golden turtle dove	Magpie which died in the cage

"Why do I dine without you when I dine with you?" is the final lament of the long suffering client.

Juvenal also mentions all the indignities which a client might meet at a rich man's table, and says that he is invited for no other reason than that a seat may not remain unoccupied. He gives the following illustration of the double menu.

Host's menu	*Client's menu*
Host quaffs wine nearly two hundred years old from cup of amber or one set with precious stones	Cheapest of wine. If even a golden cup is used, a guard is placed over it
Water that has been boiled then cooled with snow is served by a slave of great price	Water served by a slave so black that you would not wish to meet him at midnight
Lobster garnished with asparagus and dressed with Venafran oil	Shrunken crab garnished with half an egg and dressed with rancid oil.
Soft, white bread	Stale, hard, mouldy bread
Imported mullet	Eel, kinsman of the long snake

Lamprey from the Sicilian gulf	Pike fattened in the sewer
Liver of goose	
Boar worthy of Meleager	
Finest of mushrooms	Doubtful fungi
Apples so luscious that one might feast on the odor	Rotten apples

Although the custom of serving a double menu was one which seems to have become fairly common in certain classes of society during Imperial days, it never met the approval of the better people in Rome. Suetonius records it to the credit of Julius Caesar that he was so punctilious in the management of his household that he had his baker put in irons for serving him one kind of bread and his guests another. Pliny the Younger expresses his disapproval of this form of entertainment as do other authors also.

Perhaps the best known but in many ways the least representative of Roman menus is that of the cena Trimalchionis which is given by Petronius. This dinner was served at the home of Trimalchio, a wealthy but vulgar freedman. It represents an exaggerated form of the luxury and bad taste of the late Empire.

It may be seen by a glance at the menus included in this brief list that Roman menus were as varied as the variety of tastes of the several hosts, the different occasions on which the meals were served, and the gradual change from a simple life to a more complex would lead one to expect. In fact they were as varied as those of our own day. Many of the foods which they ate were quite like our own, and many of their theories in regard to diet were also similar to ours. Water was boiled to free it from impurities; whole wheat bread was considered very nourishing; and condiments were condemned by Roman physicians as being unwholesome.

SOME EXPERIMENTS WITH WHEAT SUBSTITUTES

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University of Illinois

With the decrease in the available supply of wheat it has become imperative to increase to the utmost the use of other flours. Even after the harvest wheat must still be conserved to guard against future shortage. Wheat flour has been considered indispensable because for most of our bakery goods it gives the whitest, tenderest, and largest product and because its mild flavor makes its daily use possible. While substitute flours do not give results identical with wheat, satisfactory products can in most cases be obtained.

Figures 1 and 2 illustrate the influence of increasing proportions of rice flour in a plain cake. ("Home Science Cook Book," Lincoln and Barrows, p. 199.) All ingredients by weight. *A*, all pastry flour. *B*, three-fourths pastry, one-fourth rice flour. *C*, one-half pastry, one-half rice. *D*, one-fourth pastry, three-fourths rice. *E*, all rice flour. Rice flour was selected because it is considered difficult to use a large proportion, due to the grainy texture frequently produced and to the fact that the batter does not hold the gas bubbles well.

Whenever such a series is made there is a gradual decrease in size from the all wheat to the all substitute product. (See also fig. 3.) In this case there is little difference in the appearance of the cakes as cut except that the all wheat cake (fig. 1, *A*.) shows more clearly the influence of too hot an oven in the shape of the loaf and in the characteristic muffin texture.

As the proportion of rice flour is increased, however, the cake is less elastic, more solid, and a trifle moister. One-half rice and one-half pastry flour makes a good cake, but more than one-half rice flour does not give such acceptable results. The other half of the flour need not, however, be wheat. Barley or buckwheat flours can be used, if almond or lemon flavoring is added in the case of the barley, and spice or chocolate with the buckwheat. No cake made with all substitute flours is quite like the one made with all pastry flour, but if we learn to accept a somewhat smaller and more compact loaf, we may still have a good cake using no wheat. If one-half barley or buckwheat is taken as the basis, the rest of the flour may be made up of almost any substitute flour available. The flavor of a cake made entirely of substi-

tute flour is better when the cake is entirely cold, or even on the next day. Rich cakes are difficult to make without wheat flour and had better be avoided.

If other flours than wheat are to be used, rules for substitution must be devised. The States Relations Service at Washington and the Food Administration suggest substitution by weight, that is the use of an equal weight of a substitute flour in place of wheat. The same suggestion in the case of muffins is made in an article, "Serving Meals Without Wheat" in the JOURNAL OF HOME ECONOMICS for March, 1918, page 131 (with corrections in April, page 186). On page 132 one reads, "In using other flours for wheat, an equal amount *by weight* should be used. It is perfectly easy to leave out one-fourth, or one-half, or three-fourths of the wheat flour and add in its place an equal weight of barley flour, buckwheat, rice flour, fine corn meal, or other flours." Following these directions four series of muffins were made beginning with one-fourth substitute and ending with all substitute. One set of all wheat muffins was made for comparison. The results are not uniform as one would expect if substitution by weight is the best method (see fig. 3). The all barley and all buckwheat muffins, using the recipe given in the article, were very much too stiff (fig. 3 c, *E* and 3 d, *E*.) The barley particularly was a very rough, solid muffin which was very evidently made with too much flour. Even the muffin made with one-half barley and one-half wheat begins to show plainly that too much flour has been used (fig. 3d, *C*). Apparently when barley flour and, to a somewhat smaller degree, buckwheat, are substituted weight for weight for wheat in muffins, the mixture is very much too stiff.

Figure 3 shows increasing proportions of substitute flours. Series a, rice flour; b, fine corn meal; c, buckwheat; d, barley. *A*, all wheat. *B*, three-fourths wheat, one-fourth substitute. *C*, one-half wheat, one-half substitute. *D*, one-fourth wheat, three-fourths substitute. *E*, all substitute.

Figure 4 shows the improvement made by reducing the amount of barley in an entire barley muffin. *A*, all wheat muffin. *B*, all barley muffins, same weights as in *A*. *C*, all barley, flour reduced one-fourth. *D*, all barley, same amount of flour as in *C*, large egg instead of small. *B* was made with weights identical with those used in *A*, but with barley flour instead of wheat. The rough surface gives an indication of how stiff a mixture resulted. In *C* the amount of barley flour was reduced one-fourth, by weight, giving a much improved muffin. Instead of a

hard dry muffin, a tender, moist one was obtained. Similar good results have been obtained by reducing the amount of buckwheat a little less than one-fourth. If one wishes to increase the size and thus more nearly approximate the wheat muffin, a large egg rather than a small or medium one should be used. The only difference between *C* and *D* is that in *D* the equivalent of a large egg was used. It is therefore apparent that better results may be obtained with some other rule of substitution than that of weight at least in the case of barley and buckwheat.

The same general results are obtained using all substitute flours in sponge cakes (see fig. 5). *A* is bread flour; *B*, pastry flour; *C*, fine corn meal; *D*, rice flour; *E*, barley flour; *F*, potato flour. The corn and rice sponge cakes fell a little (*C* and *D*), showing too little flour. This is more apparent where the cake has been broken to show the texture. In previous work with muffins and griddle cakes using rice flour and fine corn meal, there had been indications that a given amount of liquid required more rice flour and fine corn meal by weight than barley or buckwheat flours. The sponge cakes (fig. 5, *C*, *D*, and *E*) show this. The muffins in figure 3 show the same thing since with equal weights of all ingredients the rice and corn muffins are better than the barley and buckwheat ones. Better sponge cakes than those in figure 5 were obtained by increasing the amount of rice flour about one-sixth and decreasing the barley by the same amount. Reducing the barley as much as was found possible in the muffins (see fig. 4) caused the cake to fall slightly.

It is worth while to call attention to the potato sponge cake figure 5, *F*. In size it was equal to the one made with all pastry flour and was decidedly more tender. That is, a better sponge cake can be obtained with an equal weight of potato flour than with all pastry flour. The dry solid sponge cakes of rather strong flavor which are sometimes obtained with potato flour are due to the use of too large a quantity of the flour. In the case of potato flour for sponge cake, substitution by weight seems to be the best proportion, giving an all substitute cake which is better than the all wheat one.

The directions for substituting weight for weight have probably come about because entire substitutions have not been made with one flour, and because of differences due to milling. If the flours are mixed the differences are less apparent. A recent card from the States Relations Service makes the following suggestions:

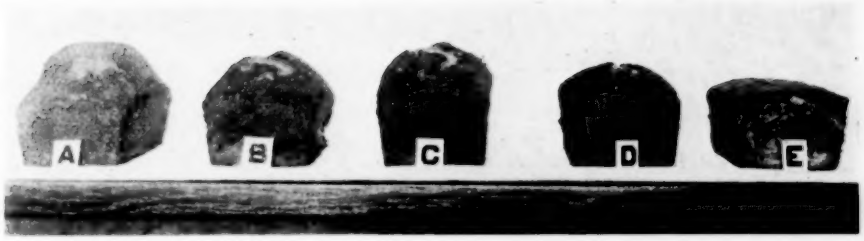


FIG. 1

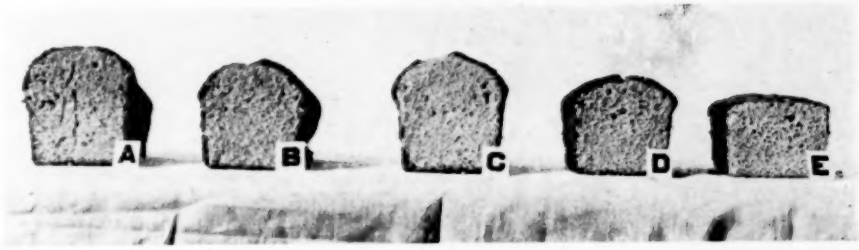


FIG. 2

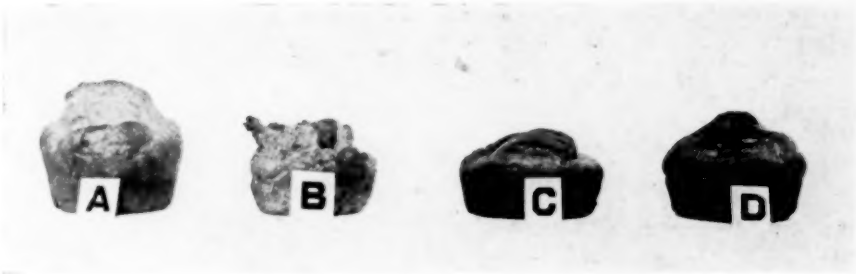
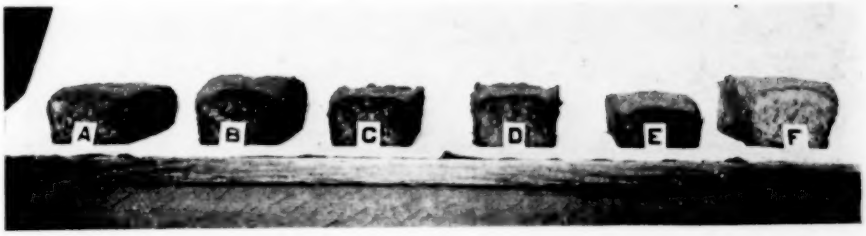
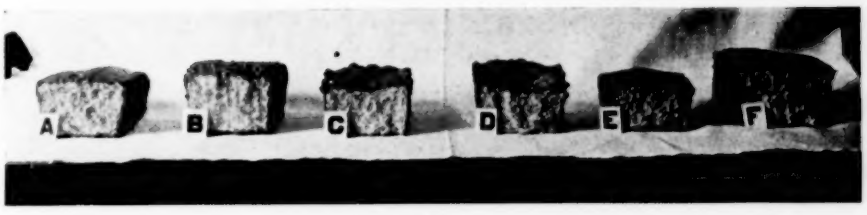


FIG. 4

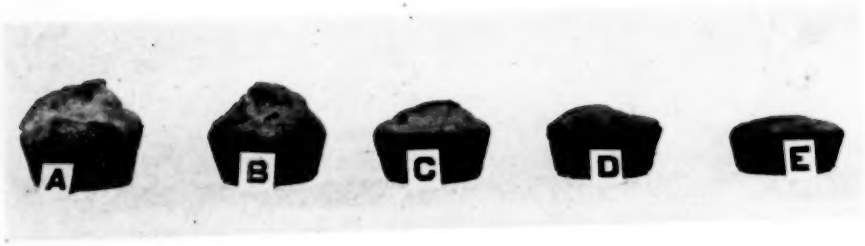


5a

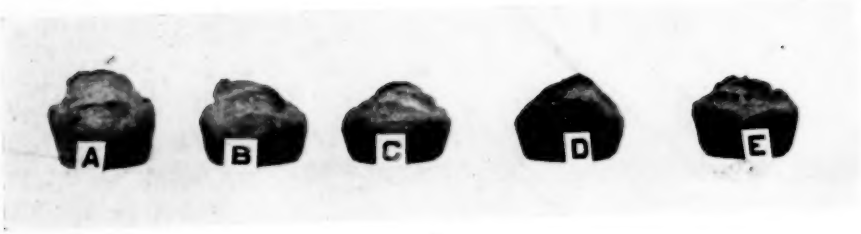


5b

FIG. 5

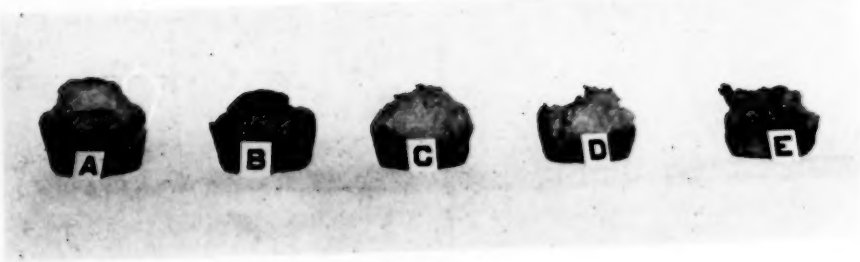


3a



3b

3c



3d

FIG. 3

Good combinations of substitutes

You will get better results if you mix two substitutes than if you use just one alone. Some good combinations are:

Rolled oats (ground)		Corn flour
or		or
Barley flour		Rice flour
or		or
Buckwheat flour	and	Potato flour
or		or
Peanut flour		Sweet potato flour
or		or
Soy-bean flour		Corn meal

It should be noticed that barley and buckwheat are not given as supplementary but as interchangeable, and that the same is true of rice flour and corn meal. In substituting according to this list the chances are very good that a combination of a substitute giving too stiff a batter (as barley or buckwheat) with one giving too thin a one (as corn meal or rice flour) would be made with satisfactory results. This list of combinations is, therefore, a very good one.

Besides the differences due to inherent differences in the flours or meals the new substitutes are a constantly varying product because of unstandardized milling conditions. The milling of high grade wheat flour has been perfected until patent flour is a fairly constant product. Even with wheat flour, however, absolutely invariable recipes are impossible with pastry, baking powder biscuit, and bread. Every one is accustomed to recipes for plain pastry with directions for adding "*about* ½ cup of ice water," and to bread recipes calling for "*about* 3 cups of flour" for every cup of liquid. If then wheat flour, the milling of which is so nearly an exact industry, does not lend itself to inflexible recipes under all conditions, it is not to be expected that the new substitutes should be uniform and hence available for exact recipes by weight. As a matter of fact almost every lot of substitute purchased is different from its predecessors. Barley muffins with a new purchase of flour are too stiff using the weights which three weeks ago gave repeatedly good results. The article referred to in the THE JOURNAL OF HOME ECONOMICS suggests that fine corn flour is an acceptable substitute for wheat flour. With the last corn flour bought here it was impossible to make good muffins using half corn flour and half barley, although the corn meal obtainable gave good results. Repeated failures were also

made with sponge cake using corn flour, although both corn meal and potato flour made satisfactory cakes.

Since exact measurements or weights are impossible until more uniform products are put upon the market, one must be content with approximate directions. First, as has been said many times, results obtained with mixtures of substitutes are usually better in flavor and texture than when one alone is used. Barley and buckwheat flour if used alone should be added until the batter is of the same consistency as with wheat. Rice and corn meal batters should be somewhat thinner; in the case of muffins very thin. Combinations for muffins and plain cakes are best if the substitutes are added until the consistency approaches that of wheat. The amount necessary, while usually neither the same weight nor the same measure, approaches the former and a table of weights may be used to indicate approximately the amounts needed. With substitute flours and meals it is, however, imperative to cook with brains and judgment.

Approximate substitution values of a few flours

For one cup of wheat flour substitute about	Other measurements of substitute equivalent to one cup of flour (United States Department of Agriculture, States Relations Service).
1¼ cup barley	1 scant cup peanut flour
¾ cup buckwheat	1⅓ cup rolled oats
1⅛ cup fine corn meal	1¼ cup rolled oats ground in meat chopper
1 cup rice flour	⅞ cup soy bean flour
⅞ cup potato flour	1⅛ cup sweet potato flour

THE TEACHING OF FOOD VALUES IN THE ELEMENTARY SCHOOLS

ROSA BIERY

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For the purpose of determining whether or not the subject of food values and selection of food could be successfully taught to children of the intermediate grades, and of finding a method by which it might be done, a series of lessons was given to both the boys and girls of the sixth grade of the University Elementary School. The results of the experiment showed that this kind of subject matter can be taught to children of that age providing all technical information is reduced to terms comprehensible to children, and providing also that the work be vitallized by constant association with the outside interests of the pupils, as much more ground can be covered in a given length of time under the stimulus of keen interest. If these two requirements are met it should be possible to give a usable concept of food values in about thirty-four lessons. In solving the first problem, recent literature on food conservation issued by the government, in which the more difficult terms are omitted, has been of great assistance. Many of the leaflets can be put directly into the hands of the children.

The big problem of interesting the pupils in this type of information was much simplified by the patriotic attitude of the class in regard to food conservation and by the general social spirit. Although the group as a whole was from well-to-do homes, all took a keen interest in the welfare of children less fortunate than themselves. As an illustration of the former, they were greatly interested in the Food Show given under the auspices of the State Council of National Defense, January 5 to 13, 1918. The floor space of the Coliseum, where it was held, was divided among five large booths, representing the five main groups of foods, and each had a large electric sign—fats, proteins, sugars, starches, or fruits and vegetables —at its entrance. The pupils decided to have an exhibit or "Food Show" of their own. They followed the same general grouping of foods as that used at the Food Show down town, using printed placards for signs. The class was divided into two sections and an interesting contest took place to see which could arrange the better exhibit.

The social interest, to which reference has already been made, was

used in two ways. The "well-balanced meal," which they discussed in connection with their study of the five food groups, was planned for a poor Italian family which the class as a whole had become very much interested in helping. The idea of planning and cooking a meal for them was very attractive to the children; accordingly the "balanced" meal was prepared in class and sent to the adopted family in a Christmas basket just before the holidays.

The cost of foods was taken up in connection with a study of the "penny-lunches" or noon meals served to the children in some of the poorer schools of the city at a minimum cost. They had already become familiar with them, as a fund for that purpose had been started in the school, and therefore they were eager to plan some lunches. In order to do this it was important to know which foods give most for the money, and thus a reason was furnished for studying this worth while topic, which would not in itself have appealed to them. The penny-lunch also furnished the needed motive for studying which foods are most important for growing boys and girls, as the poorer children are often stunted and anaemic because of lack of proper kinds of foods as well as because of insufficient quantity. The class decided which of the lunches planned best fulfilled all of the above requirements of a good penny-lunch, and it was prepared during a laboratory period.

The group to which these lessons were given had had practically no experience in food study or in cooking. Two lessons a week were allowed to the subject, the recitation period being one half hour and the laboratory period one and one-half hours. The first ten weeks were devoted to a study of the composition of the foods themselves. The laboratory work consisted of three different types: experimental tests for composition, cooking problems, and exhibits. Tests which show familiar physical characteristics of the foods were used in preference to the chemical color tests, as it has been found that they function much better in relating similar foods and classifying them. The laboratory cooking problems were chosen to illustrate the composition of the foods, and no emphasis was laid upon principles of cooking. The exhibits were arranged by the children themselves and tested their ability to classify the different foods studied according to their composition. This method was especially useful in emphasizing the main differences between the various types of vegetables and between the fine and coarse cereal products.

The remaining seven weeks of the course were devoted to the study of food selection. The children had acquired enough information in regard to composition to enable them to group foods under the five classes—protein, fats, sugars, starches, and fruits and vegetables. The selection of foods from these groups to assure a well-balanced diet, the function of each type of food material, and the relative cost of foods within each group were the topics considered. Special emphasis was placed on the discussion of "foods for growth" such as milk, eggs, and green leaf vegetables, and the quantity and kind of protein needed for children.

The methods that were used to give as clear a concept as possible of these rather difficult problems can be illustrated by the following laboratory exercises which were used in studying protein and cost. For the former an exhibit of various foods containing equal amounts of protein was arranged. Portions containing one-half ounce, such as one pint of milk, two eggs, two ounces of cheese, were used for the sake of convenience; the children were simply told that all were equal in protein. The differences in the quality of protein found in the different foods were noted and emphasis was placed on the fact that milk and eggs were better protein foods than meat for children. In order to give some idea of the amount of protein needed during a day the number of portions required by a child was discussed by the teacher and the children then selected a day's protein allowance from their exhibit. A clear, graphic picture was obtained by arranging an exhibit showing a child's protein needs for one day.

The laboratory exercise on cost was given in order that the children might know which foods were the cheapest to use in planning their penny-lunches. The basis for comparison was the relative cost within each food group on the basis of fuel value. When they arranged their Food Show each child was given cards on which were written the names of the foods which he or she was responsible for measuring, the measure of the portion (one hundred calories was used for convenience), and the cost of those amounts. When the exhibit was ready the cheapest foods in each group could be easily told by noting the costs on the cards.

In order to test the effectiveness of the course, several different methods were employed. Some conservation pamphlets issued by the Food Administration at Washington relating to wise choice of food suggested a profitable opportunity for using the information they had gained. It was impossible to get enough copies for the whole school, so this group

took the six pamphlets and selected the points that were considered by all to be most important. This required considerable judgment and continual reference to what had been learned about foods. Out of the parts thus selected a leaflet was made and printed by members of the group in the school print shop.

At the end of the series of lessons the children gave a morning assembly exercise on Food Conservation, as a summary of their work. In their English composition class they organized the material under the following main topics: (1) Our Food Show (referring to their exhibit); (2) Which Foods are Cheapest; (3) The History of the Penny-Lunches; (4) How we planned our Penny-Lunches; (5) "Foods for Growth," (6) The Need for Conservation—(a) Shortage of food in Europe, (b) Shortage of food in America, (c) What we should save, (d) We are not saving enough; (7) How We Made Our Leaflets. Each topic was made the basis of class discussion. After all had been worked out in detail the class was divided into committees, each committee being responsible for the presentation of a large topic at the school assembly exercise. The members of a given committee held themselves responsible for the preparation of all pictures and charts needed to make the topic clear. To add interest to the program an exhibit of foods divided into the five groups was placed across the front of the stage on tables covered with white paper to give the effect of a counter. Large trade containers which could be easily recognized by the audience were used. In front of each group of foods was a poster containing the names of the foods in that group. The leaflets prepared by the class were given out at the close of the program.

To test whether or not the pupils would be at all guided in the choice of their own food by the knowledge gained, the bill-of-fare was brought in from the cafeteria and the pupils selected the lunches which they would like. In order that they might keep in mind the importance of considering food for the day rather than for any particular meal, they were asked to put down examples of the kind of breakfast and dinner they would need with the lunch chosen. Some sample menus are given:

Lunch	*Breakfast*	*Dinner*
Glass of milk	Orange	Tomato soup
2 rolls and butter	1 cup cocoa	Bread and butter
1 dish baked beans	2 pieces toast	1 dish spinach
1 baked apple	1 dish oatmeal	1 serving meat
		Potatoes

Lunch	*Breakfast*	*Dinner*
Creamed fish	1 egg	Spinach
Mashed potatoes	Toast	Steak
Rice pudding	Apple sauce	Chocolate blanc mange
	Cocoa	

Although the course could not be directly adapted to another situation, the experiment has shown that if an effort is made to connect the subject of food selection with the interests of the children it can be given real meaning for them. In the present crisis there is little doubt that one of the important features of food conservation is the dissemination of such information, in order that we may conserve without endangering our national health.

AN ECONOMY SUGAR BOWL

An economy sugar bowl made from a baking-powder can by Major E. C. Dalton and now in use on all mess tables of the Sixty-third Infantry at the Presidio, in San Francisco, has been brought with three other inventions to the Army Medical Department. The unique sugar bowl is made very simply by boring a hole, half an inch in diameter, through the rim of the lid of a baking-powder can and through the can itself. When these holes are in position, one upon the other, a steady flow of sugar to the desired amount may be had. According to Major Dalton, by the use of these sugar-bowls, the consumption of sugar has been cut down 20 per cent in seven months' use by the Sixty-Third Infantry. He said:

"Several methods were tried for saving sugar. Sweetening coffee and tea was tried but that is both wasteful and unfair to individuals who have varied tastes. The open sugar bowl is a failure. If a wet spoon is thrust into it a double amount clings to the spoon. The sugar in the bowl dampened by this process must be thrown out. The baking-powder can is the solution. The men pour the sugar from it directly into the spoon. They can see then just how much they are using."

HOME PROJECT WORK IN VOCATIONAL HOME ECONOMICS IN SECONDARY SCHOOLS[1]

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GENERAL DIRECTIONS

All project work should take into consideration: the age, health, and personal qualifications of the pupils; the previous class work and experience of the pupil; the type of home training the pupil has had; the financial conditions in the home.

Each pupil should carry on project work through six months of each year, choosing the months best adapted for carrying out her particular project. The same project may be developed through more than one year. More than one project may be developed in the six months. We do not want a project to become irksome.

The work should be systematically reported and credit given to average in with other home economics units.

The home economics teacher should do all in her power to stimulate and inspire the pupils to do original work and independent thinking, and to make the projects bring worthwhile results and conclusions

PRELIMINARY STEPS TO BE TAKEN BY THE TEACHER

Become acquainted with home conditions of the pupils.

Have a general meeting and tea for all mothers of girls in the classes. If this number seems too large, better give a series of gatherings according to classes, so that the groups do not number more than ten or fifteen.

Try to have a chat with each mother at this time, or make a home visit soon after, the aim being to find out from each something of her ambitions for her daughter and the daughter's personal likes and dislikes in this specific work.

While they are together, tell them in a friendly way something of the plans being made for their girls and some of the things the work may accomplish. Solicit their coöperation, and show how much may be done if all work together.

[1] Suggestions for home project work to be given in connection with vocational courses in home economics in secondary schools in Ohio.

Approved under the Ohio plans for administering the Smith-Hughes Act.

Have a personal conference with each girl to decide what her definite project is to be. Talk over a number of possibilities and, knowing somewhat the conditions, as outlined above, try to help her choose a project which will be reasonable, interesting, and profitable.

Prepare with her a definite statement of her problems and an outline or program of procedure.

SUGGESTED PROJECTS POSSIBLE FOR THE VARIOUS YEARS OF THE COURSE

First year. Based on simple study of foods, the making of simple undergarments, and the care and repair of clothing.

Work might well include such projects as:

Canning of fruits and vegetables.

Storing of fruit and vegetables and eggs for winter use.

The preparation of beverages for all the family meals.

The preparation of some definite part of certain meals.

Preparing certain parts of the school lunch if there is a lunch room.

Making a simple baby outfit.

Hemming and marking the household linens.

Making certain undergarments and comparing with ready-made garment of same cost as to quality, durability, daintiness, etc.

Caring for the family bedding from season to season.

Test of best care for stockings.

Second year. Based on first year's work, on simple dressmaking, and more advanced food study and planning and serving of meals.

Some possible projects:

Selection, buying, and canning of fruit and vegetables.

Jelly making. (Products should be compared with same quantity of commercially prepared fruit as to flavor, cost, appearance, etc.)

Plan meals for a family and prepare one simple meal a day.

Set the table and serve the family dinner each day.

Prepare and serve one of the lighter meals each day.

Plan menus for school lunch room and plan way of serving.

Plan for and pack lunch pails at home.

Choose and buy material for a simple wash dress and make it, keeping record of amounts, cost, and time in making.

Keep own clothes well cleaned, pressed, and repaired.

Third year. Based on first and second years' work and on house planning and decorating, and more advanced dressmaking and millinery.

Chart the home kitchen and work out a scheme for efficient arrange-

ment of equipment. Suggest additional equipment needed and find cheapest adequate kinds. Buy it and install if practicable.

See how cheaply and tastefully a bed room can be renewed with home-made rugs, new paint, etc.

Make a silk or wool shirtwaist.

Trim a school hat (choose and buy shape and trimmings).

Keep a personal clothing account. (This may be help for a budget in the fourth year.)

Plan the diet for a younger brother or sister and supervise carrying out feeding according to the plan.

Plan and help in the preparations for serving the threshing hands, working out and ordering quantities of material necessary, cost, etc.

Fourth year. Based on the three previous years' teachings.

Keep a personal budget.

Keep school lunch room accounts and pay the bills.

Make a simple wool dress. Record amounts, time, and cost.

Make over a dress. Count cost and time.

Make a winter hat, count cost and time.

Make a spring hat, count cost and time.

Keep family household accounts.

Make an outline for household duties of all kinds, estimating time required, and giving proper assignments to various members of family.

Two Types of Home Projects Worked out in Greater Detail (Suitable for Use in First Year Work)

A. In Study of Foods

Pupil's Outline of the Project

Statement of the project. The purpose of this work shall be to show that a meal or menu may be varied by preparing and using such familiar foods as rice, potatoes, eggs, apples, corn meal, etc., in a number of different ways.

The amount of time and skill in manipulation required in preparation of each dish will be considered, also its food value and cost in relation to the rest of the meal with which it is served.

Start with a definite weight or measure of potatoes and record any amounts added from time to time.

Each time potatoes are to be served to your family, consult the person responsible as to plans for the rest of the meal and then choose and prepare a potato dish from the following list. (Recipes furnished by the home economics teacher.)

Twenty-four ways of serving potatoes: Plain boiled (in salt water), plain steamed, plain baked, baked and stuffed, riced, mashed, creamed, escalloped, au gratin, maitre d'Hotel, potato soup, potato croquettes, potato salad, potato chowder, cottage pie, French fried, fried raw, fried (cold boiled), potato dumplings, potato cakes, potato puff, browned hash, browned whole, browned with meat roast.

After each day you serve potatoes, record:

Quantity of potatoes used.

Number of people served.

How prepared (recipe used).

Cost of whole dish.

Proportion left unserved.

How long it took to prepare ready for serving.

Whether length of time allowed for preparing was sufficient to do the work well.

Whether the way in which they were prepared seemed pleasing to most of the people served.

Any changes you could suggest in seasoning or preparation, to make them pleasing to more of the family and still use this way of serving them.

The rest of the menu, and show why you think this was a good choice of way to prepare the potatoes, taking into account the cost in time and money, food value, etc.

How much help, if any, you had in preparation today.

Summary for Whole Project

Estimate at the end of the work: The average weekly amount and cost of potatoes your family have used; the average cost of a serving.

Which method of preparation has proved most popular?

What are some ways you have found of serving potatoes besides those on the list given you?

What is the value of learning a variety of ways for preparing a food like potatoes?

B. IN STUDY OF TEXTILES AND CLOTHING

Pupil's Outline of the Project

Statement of the project: The purpose of this work shall be to prove what treatment will give a pair of socks or stockings the longest usefulness.

Start with a set of three pairs of new stockings for each of three people. The stockings in each set must be of the same quality. Give each of the three sets the same treatment as outlined below.

Sew tapes into the top of each stocking and, with indelible ink, letter the sets respectively A, B. C. or a name initial. (There will be six stockings of each letter). Number the stockings of each set in pairs 1, 2, 3.

Treat each set as follows: *Pair One.* Wash before wearing the first time and rinse out the feet each night after they have been worn. Put into the general laundry at regular intervals.

Pair Two. Run darning cotton in heels before wearing the first time. Put into the general laundry at regular intervals.

Pair Three. Wear first time without washing or darning in the heels. Put into the general laundry at regular intervals.

See that the pairs are worn in regular rotation and kept mated after each washing.

When holes come, mend them all once a week until darning seems no longer a reasonable way to mend. (The teacher should help decide this point). Patch when it seems best and re-foot if possible by a pattern provided by the teacher. (This pattern may be obtained at the Home Economics Department of Ohio State University).

Keep a record of:

The number of days each pair has been worn.

The number of times each pair has gone through the general laundry.

The time spent in mending each pair.

The length of time each pair has lasted.

See if like treatment gave the same results in each set.

Summary for the Whole Project

What number were the pairs that lasted longest?

How much time had you spent mending and re-footing them?

What numbers were the pairs that lasted the shortest time?

Which of the three methods of treatment used seemed to make the stockings last longest?

Suggest all the ways you can for using stockings after they can be no longer worn on the feet.

CONSERVATION AND THE FOOD BUDGET

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Conservation! We hear it everywhere. And just as often do we hear groans about the "high cost of living." Field workers are asking, "But how can I tell my people that they must use substitutes, when they insist that to do so means added expenditure?" With prices higher than ever before, is it more difficult for the patriotic housewife to make both ends meet than for the woman who pays no attention to the requests of the Food Administration?

In the light of this query, the food budget taken from the account book of the University of Wisconsin Home Economics Practice Cottage for the last three years, may be of interest. During the first semester of the year, the students in the household management class spend five days at the Cottage. They come in groups of three and under the supervision of an instructor buy, prepare, and serve food for four people, as well as care for the house and make time studies of the work done. Accurate accounts are kept and from them the following tables were compiled.

During 1915 and 1916 the menus were planned on the basis of 35 cents a day per person for raw food materials or $7.00 for the groups of four for five days. In 1917 the same amount was allowed, but "meatless" and "wheatless" days and substitutes for various foods were required. It was a new problem for the girls to face and they "Hooverized" loyally throughout the course. In order that the comparison may be fair the same period of time—October through February—has been taken for each year. The work at the cottage during the second semester is of a different nature and has not been considered in this study.

DISCUSSION OF ITEMS OF BUDGET

Bread. Increase in expenditure due not only to gradual rise in price of white flour, but also, in 1917–18, to the use of barley, rice, potato, corn, and rye flours, all more expensive.

Butter. Slight decrease, in spite of gradual rise in price, due to occasional use of substitutes on the table, one butterless meal per day, and entire elimination of butter in cooking.

Cheese. Increase in expenditure due to increase in its use as a meat substitute.

Cream. Decrease in expenditure due to decrease in use.

Eggs. Decrease in expenditure due to fact that during December, January, and February eggs previously preserved in water glass by the class were used.

Flour and cereals. Increase in expenditure due to increased price as well as to the use of cereals, other than wheat, which were more expensive.

Fruit. In order to conserve sugar more simple fruit desserts were served.

Lard and substitutes. Although no lard was used in 1917–18 and much less fat, the general rise in prices makes the decrease in expenditure very slight.

Meat and fish. Decrease in expenditure due to decreased use of meat and increased use of "meat extenders" and fish. One wheatless day and one, later two, meatless days were rigidly observed.

Milk. Increased expenditure due to increased cost and use.

Sugar. Expenditure decreased in spite of increased price.

Tea and coffee. A satisfactory coffee (21 cents) was used in place of the former 35 cent to 40 cent grade. This was thought to be an easy way of reducing the budget.

Vegetables. The increased expenditure runs parallel with that of fruit and oils. The girls were urged to use fresh vegetables as long as possible and less canned goods. Dinner was always a breadless meal, and to help take the place of its bulk, a second green vegetable—often in the form of a salad was served.

Totals. The total expenditure for 1917–18 is less than either of the two preceding years. This indicates that the rather vague notion of conservation increasing the already too high cost of living may be a subject for further investigation. Conservation, as carried on in the cottage, represents very careful planning on the part of the student. She spends no more time on the actual preparation of the meal, however, than the average housewife would spend, since full University work must be continued during the week at the cottage. Knowledge of food values and how to make good food combinations are undoubtedly the basis of the reduction in the budget. Workers in War Emergency are pursuing the right course in building up the housewife's knowledge of foods and teaching combinations as well as actual substitutes and preparation of dishes.

5 Months (October-February)

ITEMS	1915-16	1916-17	1917-18
Bread, cookies, wafers	$3.44	$4.99	$4.83
Butter and substitutes	12.24	12.47	10.74
Cheese	2.02	2.89	4.19
Condiments	1.10	.78	.97
Cream	7.11	6.44	5.43
Eggs	8.71	7.00	4.91
Flour and cereals	5.03	7.51	7.81
Fruit, dried and canned	7.19	3.26	3.71
Fruit, fresh	11.54	9.31	11.27
Lard and substitutes	1.92	2.60	2.11
Meat and fish	29.18	22.64	20.19
Milk	5.23	4.99	7.77
Miscellaneous foods	6.92	11.18	5.44
Oils (salad)	1.60	1.50	3.10
Sugar	4.32	6.13	4.67
Tea and coffee	2.30	3.83	1.93
Vegetagles, canned	4.55	4.08	1.49
Vegetables, fresh	12.51	8.38	13.30
Total	126.91	119.98	113.86

In connection with this budget it is necessary to know the increase in price of the various items during the three years.

Costs

ITEMS	1915-16	1916-17	1917-18
Bread per loaf	$0.05	$0.05-0.06	$0.10-0.15
Butter, per pound	.29- .36	.37- .45	.49- .55
Cheese, (American) per pound	.25- .36	.28- .36	.36
Cream per quart	.36	.36- .40	.52- .60
Eggs, per dozen	.26- .36	.34- .48	.42- .47
Flour (white) 49 pounds	1.75-1.80	2.75	3.40
Rice 3 pounds	.25	.25	.30- .33
Lard per pound	.15- .16	.20	
Oleo per pound	.21	.25	.34
Crisco ½ pound	.25- .28	.38	.45
Milk per quart	.07	.07- .08	.11
Oils:			
Wesson per pint	.30	.30	.40
Olive per quart	1.00		
Sugar	16 lbs. for $1	12-11 lbs. for $1	10 lbs. for $1

Menus for five days in December

1915–16, average cost per meal per person, $0.1276 (raw food).

Breakfast	*Lunch*	*Dinner*
FRIDAY		
Grape fruit	Cream of tomato soup	Swiss steak
Ralston's, cream	Wafers	Riced potatoes
Toast	Succotash	Tomato salad
	Corn muffins, butter	Prune pudding
	Baked stuffed apples	
SATURDAY		
Ralston's with dates, cream	Lima bean puree	Pork chops
Eggs à la Goldenrod	Wafers	Fried hominy
Toast	Rice and cheese en casserole	Waldorf salad, wafers
	Asparagus salad	Soft custard
	Hot rolls, jelly	Marguerites
SUNDAY		
Malaga grapes	Fricassee chicken	Fruit salad
Oatmeal, cream	Mashed potato	Nut bread, butter
Plain muffins	Bean salad	Chocolate
	Apricot sherbet	Soft custard
	Angel food cake	Angel food cake
	Cafe noir	
MONDAY		
Potato and hominy pattees	Creamed chicken on toast	Pot roast
Rolls, butter	Sweet potatoes	Boiled potatoes
Orange marmalade	Nut bread, butter	Turnips
Coffee	Pea and bean salad	Head lettuce salad
		Wafers
		Pumpkin pie, cheese
		Cafe noir
TUESDAY		
Apple sauce	Chicken soup	Hash
Creamed chicken	Wafers	Scalloped potatoes
Toast	Peanut butter cakes	Rice pudding
Cocoa	Pea salad	Cream
	Apricot sauce	
	Angel food cake	

1916–17, Average cost per meal per person, $0.119

Breakfast	*Lunch*	*Dinner*
	SATURDAY	
		Pork chops, gravy Boiled potatoes Buttered carrots Bread and butter Brown betty, lemon sauce
	SUNDAY	
Grape fruit Oatmeal, cream Griddle cakes Syrup Coffee	Rib roast beef Mashed potato Buttered peas Bread and butter Fruit salad with wafers Apple pie Coffee	Nut and cheese sandwiches Oatmeal cookies Chocolate
	MONDAY	
Prunes Corn flakes, cream Muffins, butter Coffee	Bean puree Scalloped celery Clover leaf rolls, butter Cherries Cookies Tea	Beef consommé Wafers Roast chicken Bread stuffing Stuffed potatoes Baked squash Fruit salad, wafers Marshmallow charlotte Cake Salted nuts Xmas candies Coffee
	TUESDAY	
Oranges Oatmeal, cream Toast Coffee	Chicken soup, wafers Nut cheese roast Squash biscuit Blanc mange Cranberry jelly Tea	Beef and rice casserole Cottage cheese salad Bread and butter Spiced pears Jellied prunes Coffee
	WEDNESDAY	
Oranges Corn flake, cream Muffins, butter Cocoa	Baked beans Toasted cheese sandwiches Lettuce and pimento salad "Heavenly Hash" pudding Tea	Grapefruit cocktail Creamed chicken on toast Potato patties Charlotte russe
	THURSDAY	
Stewed prunes Graham mush, hot milk Toast, butter	Creamed hash on toast Potato salad Baked rice pudding Tea	

1917–18, Average cost per meal per person, $0.115.

Breakfast	*Lunch*	*Dinner*
	SUNDAY	
Grapefruit	Meat loaf	Toasted cheese sandwiches
Cornmeal griddle cakes	Escalloped potatoes	Oatmeal macaroons
Karo, butter	Beet and lettuce salad, mayonnaise	Cocoa
Coffee	Peach cobbler	
	Coffee	
	MONDAY	
Cream of rye with figs and top milk	Escalloped corn	Clear tomato soup
Barley muffins	Corn meal muffins	Pot roast of beef
Butter, honey	Butter	Browned potatoes
Coffee	Head lettuce salad	Mashed squash
	Apricot sauce	Asparagus salad, mayonnaise, wafers
		Fruit cup
		Honey cake, fig filling
		Coffee
	TUESDAY	
Hominy grits	Cream of potato soup	Baked fish
Top milk	Bean and pea salad	Creamed carrots
Buttered toast	French dressing	Lyonnaise potatoes
Marmalade	Cornmeal parker house rolls	Orange pudding
Coffee		
	WEDNESDAY	
Stewed prunes	Escalloped potatoes and cheese	Beef hash
Oatmeal with figs and raisins, top milk	Banana and nut salad	Creamed salsify
Barley drop muffins, butter	Cocoa	Relish
Coffee		Pineapple tapioca
	THURSDAY	
Stewed apricots	Mexican rice	
Puffed rice, top milk	Corn meal crisps	
Buttered toast	Stewed plums	
Coffee		

"We in America are strong individualists, and we shall not lose the thought of the development of the individual in the development of the community. Is it not this spirit of mutual helpfulness that we need at present to develop? Is not this the dream of democracy, the hope of our country, and the realization of the Christian ideal?"—*Helen Kinne, From an address delivered at the Southern Education Congress, Louisville, 1914.*

HOME ECONOMICS IN THE PUBLIC SCHOOLS UNDER WAR CONDITIONS[1]

ALICE A. JOHNSON

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The supervisors in the Department of Household Economy in the Philadelphia public schools appreciate fully the unusual opportunities for special activities in all of the economics of the household.

From the fifth to the eighth grades inclusive, the girls are learning the art of sewing and since "learning by doing" is our motto they are fashioning garments which are for the use of children in the war stricken countries. Because the garments are to go to those less favored than the makers, there is the greater reason for the stitches to be more carefully taken and the garments perfectly completed. This fine service for others produces in the sewing classes a spirit of helpfulness which is gratifying to the teachers of sewing and to the Supervisor, Miss Alice L. Keech.

The girls in the seventh and eighth grades in addition to their sewing lessons spend about two hours a week in cooking and other activities in the kitchen. We plan to have the Cooking Centre a "Food Informational Centre" in the community as well as a laboratory where food preparation and food values are taught to children. It is busy now in interpreting the messages sent out by the State and National Food Administrations. Mr. Hoover and his aides "Get the Facts before the People" and it is the duty of the teacher of cooking to make clear the meaning of these messages—to carry them into the homes through the children—to translate such directions so that they are unmistakable to everyone within the circle of influence.

In June and September the centres are busy preserving food for use during the school term, and at this time, special invitations are extended to the homemakers of the community to visit the cooking classes and see the methods taught the pupils. Wherever it is possible the teacher of cooking gives one or two public demonstrations in her school so that questions on the details of the work may be answered.

The United States Food Leaflets are being used as supplementary text. A set of leaflets has been procured for each pupil attending the

[1] Part of the discussion on Home Economics in the Public Schools, at the Tenth Annual Meeting of the American Home Economics Association, Atlantic City, March, 1918.

cooking classes, and a leaflet is given to each pupil, each lesson, and used as supplementary text for the lesson. The pupils prepare daily at least one recipe and when possible take home a sample of the food thus prepared, with the leaflet. Parents are urged to visit the class when other samples are being made. The leaflets on which there are no recipes are used as text for study, and a food described on a former leaflet is prepared.

The term "Conservation by Substitution" acquires new meaning when the recipes for the substitutes are prepared in the class room and used as samples at school and at home.

This winter when the Red Cross Bazaar was about to open, we were struggling with the sugar embargo—and yet, who ever heard of a Bazaar without Candy! This was our opportunity and with guidance the pupils demonstrated that sweets can be made without sugar. Splendid coöperation was obtained in most instances and always our teachers are standing directly behind the Food Administration, and their enthusiasm and earnest effort are a force among their pupils—a troop of 12,000 girls—all "Hoover Helpers."

WHY EAT FOOD?

A COLLEGE GIRL'S NONSENSE EXPLANATION

What with the war in Europe and all, it is difficult to get a dietary standard with the glutinoids and celluloids properly balanced.

A dainty jelly can be made from mountain ash berries and Le Page's Liquid Glue. The glue furnishes the necessary adhesion to make the whole mess jell.

Doughnuts these days are traitorous unless fried in boiling water instead of *Fat Soluble A*. Put a bit of machine oil in to make them float, and then camouflage them as eatables by browning them in the oven.

A delicious bread pudding can be made of absolutely anything, and bean soup made without beans fills the aching inner man as substantially as cement.

"A family of five can live for a year on the things lying loose about the house," says Professor ————.

—*Shux*, University of Wisconsin.

FOR THE HOMEMAKER

CHANGING A PEACE TIME RATION FOR WAR TIME

CAROLINE L. HUNT

U. S. Department of Agriculture

Human machines—men, women, children—differ considerably in their choice of the fuels from which they get the power necessary for work or play. They have an advantage in this respect over the steam engine or the automobile, which must take any kind of fuel that is supplied to it—wood, coal, kerosene, or gasolene. Some human machines prefer to get more fuel from milk than from meat; others, more from meat than from milk. Some get more from cereal than from meat; others do the reverse. Some prefer fats to sweets; and others sweets to fats.

In spite of differences in the kinds of diets used, it is safe to say that the average American who is not under the pinch of poverty gets about one-sixth of all the fuel he needs from vegetables and fruits—such as potatoes, tomatoes, apples, melons, berries, prunes.

It is generally agreed that the raw materials supplied to the "census" family (father, mother, and three young children) or to a family consisting of two men and two women should supply about 12,000 heat units or calories. Some people refer to this as 120 one-hundred calorie portions. This is enough for a family in which the adults do rather hard muscular work like carpentry or housework including cleaning and washing. It makes allowance for all the unavoidable losses in cooking, serving, and digestion. It provides also for the fact that it is impossible to divide a given portion of food exactly according to the varying needs of the members of the family. One member is liable at any time, even with the best of intentions, to get more than his share, and, unless there is some margin, another would get less than needed.

If the 12,000 are provided in the following way the diet will be amply but not extravagantly supplied with vegetables and fruits: will be sweet and rich enough to taste good but will not contain more fat and sugar than desirable.

Distribution of daily calories in the average healthful peace time ration for a family

From vegetables and fruits	2000 calories or 20 100-calorie portions
From milk, meat, eggs, cheese, etc.	3000 calories or 30 100-calorie portions
From bread and other cereal foods	3500 calories or 35 100-calorie portions
From sugar, syrup, honey, etc.	1200 calories or 12 100-calorie portions
From butter, oil, bacon, cream, etc.	2300 calories or 23 100-calorie portions

Now comes our country's call to save sugar; cereals, particularly wheat; meats and fats. This means use honey and syrups in place of sugar; and fish, milk, cottage cheese, etc. in place of meat. But it also carries this message to the housekeeper:

"Rearrange the calories in that peace time list so that fewer will be selected from fats, sweets, and cereals, and more from vegetables and fruits. Do not be content simply to use more vegetables and fruits but make them take the place of other foods."

In the light of this interpretation of the message, the following facts about summer dishes as they are usually prepared from vegetables and fruits are significant:

Mashed potatoes—850 calories

Potatoes, 6 medium-sized, 2 pounds	600 calories
Butter, 2 level tablespoonfuls, 1 oz.	200 calories
Milk, ½ cup, about	50 calories

Lettuce salad, boiled dressing—300 calories

Lettuce, 1 head, 1½ pounds	100 calories
Boiled dressing, ½ cup	200 calories

Lettuce salad with oil—500 calories

Lettuce 1 head, 1½ pounds	100 calories
Oil 4 tablespoonfuls	400 calories

Creamed cauliflower—540 calories

Cauliflower, 1 medium sized	140 calories
White sauce, 1 cup (milk, 1 cup; flour and butter, each 2 level tablespoonfuls)	400 calories

Glazed sweet potatoes—1930 calories

6 potatoes, medium sized	1380 calories
Sugar, ½ cup	450 calories
Fat, 1 level tablespoonful	100 calories

Stewed prunes—2100 calories

Prunes, 1 pound	1200 calories
Sugar, 1 cup	900 calories

Baked apples—1000 calories

Apples, 6 medium sized	550 calories
Sugar, ½ cup	450 calories

Strawberries, cream and sugar—875 calories

Berries, 1 quart	175 calories
Cream, ½ pint	400 calories
Sugar, 6 level tablespoonfuls	300 calories

Escalloped Tomatoes—750 calories

Tomatoes, 1 can or 2 pounds fresh	200 calories
Sugar, 1 level tablespoonfuls	50 calories
Fat, 2 level tablespoonfuls	200 calories
Bread crumbs, 2 cupfuls	300 calories

There is no objection to any of these dishes, but the object in substituting will be accomplished better by serving some at least of the vegetables and fruits in ways that call for "no fat and sugar."

Some vegetables and a few fruits can be eaten with salt alone. These include radishes, celery, and tomatoes. Cucumbers can be cut into strips and eaten like celery. Melons can be eaten with nothing added or with salt. Many fruits commonly eaten with sugar from force of habit are found far more refreshing without it. Prunes cooked without sugar or simply soaked are a good substitute for fresh fruit if served with lemon juice or with lemon juice and salt.

All fruits contain sugar, but when fresh this sugar is dissolved in a considerable amount of water. It is only after the water is dried out of them that they seem sweet. The lesson from this fact is that if fruits are to take the place of sweets fresh ones must be cooked down as far as possible and dried ones must be made palatable without the addition of much water.

Raisins dipped into boiling water and then put into a closely covered dish to steam make a good sweet to eat with the breakfast cereal. Dried pears are said to be a delicious sweet particularly if they are dipped in salt water before being dried.

If apples are baked in a covered dish without sugar until their skins are soft, they can then be cooked down till they seem sweet. This is especially true of some varieties. To save room the apples may be cut into quarters.

The sugary vegetables can be cooked down in much the same way. Carrots and parsnips may be boiled in water to which a little fat has been added till they are soft and all the added water is expelled. Sweet potatoes break up too easily for this method but can be cooked in a baking dish with water and a little fat.

The amount of food or fuel obtained from the vegetable and fruit supply will depend largely on the amount of waste. Potatoes that are to be boiled or baked may be blanched in much the same way as tomatoes by putting them in a frying basket and dipping them into boiling water for two or three minutes. The skin can then be removed with little waste.

The calories which a family is willing to take from vegetables will depend partly on the variety of ways in which they are served. Potato salads, chowders, and creamed potatoes, for example, can all be varied almost endlessly by the flavorings used. The potatoes may be combined with beets, cucumbers, carrots, peas, tomatoes, beans, onions, pimientoes, green peppers. Others may be varied by the method of cooking.

For a war time ration use vegetables and fruits abundantly. Choose ways of preparing and serving which require the addition of little or nothing that has any fuel value and that reduce their bulk by driving off their water.

POINTS IN SELECTING MEALS[1]

FLORA ROSE

Cornell University

I. YOU NEED THREE THINGS FROM YOUR DAILY MEALS.

1. You need fuel.

Your body must be kept warm and it must have energy for its work.

The more work your body does the more fuel you must feed it.

If you do not eat enough fuel food to keep your body warm and to do its work, your body will burn some of its own tissues as fuel and you will grow thin.

If you eat too much fuel food you may grow fat or you may clog the machinery of your body and injure it.

2. You need building material.

[1] The first of a series of lessons now in preparation. To be published by The Macmillan Company.

You must supply all parts of your body, muscles, bones, nerves, blood, and the rest with those materials which they must have if they are to grow or to be kept in repair.

If day after day you fail to eat enough of any material needed by the body for growth or repair your body will become worn out and damaged.

3. You need body regulating substances.

Your body works well only when your daily food contains various materials whose business it is to keep the machinery of your body running smoothly.

Without these regulators your body could not burn its fuel normally. It could not set its building materials in place. It could not eliminate its wastes. It would cease to grow. Friction would occur. The machinery of your body would be damaged and the engine would stop.

II. EACH FOOD YOU INCLUDE IN YOUR MEALS SHOULD BE THERE FOR ONE OF THE FOLLOWING THREE REASONS:

1. Because it is a good fuel food and you need the energy its fuel can give.
2. Because it contains building material which your body needs.
3. Because it can supply some body-regulating substance that you must have to make the machinery of your body run smoothly.

III. YOU NEED TO KNOW THREE THINGS ABOUT THE FOOD YOU EAT:

1. Which substances in foods give them their fuel value and which foods are the best ones for you to select as fuel foods.
2. Which substances are needed to build your tissues, and which foods are the best ones to select for each building material.
3. Which foods will give you the body-regulating substances that you need in a form which you can use to best advantage.

Group I Fuel Foods.

a. Most of your day's energy should be supplied by foods rich in starch.

Breakfast foods (oatmeal, cornmeal, barley, wheat foods); bread of various kinds; dried peas, beans, and lentils; vegetables rich in starch as potatoes.

b. Some of your day's energy should be supplied by foods rich in fat.

Milk	Eggs	Meat fats of various kinds
Cream	Fat meat	Oils or foods rich in oil.
Butter	Bacon	

c. Your day's meals are more palatable if some of your energy is supplied by foods rich in sugar. Sugar is not necessary. Avoid too much.

Sweet fruits and vegetables.	Molasses	Sugar
Honey	Syrups	Desserts and candy

Group II. Building Foods.

There are four conspicuous building materials which you must consider in selecting your food. You need some of each, each day.

a. *Protein.*

Some of your day's protein should be supplied by one of these animal foods. One will replace another.

Milk Eggs Cheese Meat

Most of the remainder may be supplied by these foods.

Breakfast foods (oatmeal, wheat, cornmeal, barley, rye, buckwheat, etc.); breads of various kinds; dried peas, beans, and lentils; nuts.

b. *Lime.*

Lime is necessary. Many dietaries are low in lime.

The most valuable lime foods are:

Milk { Milk contains more lime than a saturated lime solution. It is the cheapest lime food. } Cheese Eggs

Next in lime value are:

Leaves and stems of plants, as: spinach, celery, lettuce, cabbage, onions, swiss chard.

c. *Iron.*

Many dietaries are low in iron. Foods best to supply you with iron are: Green vegetables (our most valuable source); fruits and vegetables as a whole; breakfast foods and breads made from the whole grain (our cheapest source); eggs (excellent but expensive); meat (rich in iron but the value of its iron is questioned).

d. *Phosphorus.*

Foods best to supply your phosphorus are: milk; eggs; meat; breakfast foods and breads made from the whole grain; dried peas, beans, and lentils.

Group III. Body regulating foods.

You must select regulating foods from each of these groups:

a. Laxative foods: fruits and vegetables; breakfast foods and breads made from the whole grain.

b. Foods containing salts, acids, or flavors needed by you: fruits and vegetables.

c. Foods containing two unknown factors both of which you must have if you wish to grow or retain your health.

1. The first unknown factor essential for growth and health is found in amounts sufficient for your needs in milk, butter, cream, eggs, meat (if you eat enough of it), cod liver oil.

The following foods contain it in amounts which will help but they are too bulky to enable you to eat enough for your needs.

Leaves and stems of plants, as: spinach, swiss chard, dandelion greens, cabbage, onion, celery.

2. The second unknown factor essential for growth and health is found in amounts sufficient for your needs in milk and eggs; breakfast foods and breads made from the whole cereal grain; peas, beans, and lentils.

SALVAGING FOOD CONTAINERS

KATHERINE WICKER

U. S. Food Administration

"Just look!" and she waved me towards a table covered with an assembly of containers. There were white Dundee jars, jars from the "Purveyor to the King," screw-top candy jars, wide mouthed pickle and olive bottles, jelly glasses, seal-tight coffee and marshmallow tins, Educator tins with nicely hinged top, and even Sterno cans. All were shining clean and carried no suggestion of junk; on the contrary, the aggregation inspired a desire to store summer fruits like a provident squirrel.

This woman didn't keep house, yet a year of small entertaining, occassional spreads, and in-between nibbling in her apartment, had yielded this treasure trove of containers. She had found someone who could use them, and arranged to pass them on in good shape instead of consigning them to the junk heap.

Many a household and some stores have on hand just such useful jars, and boxes that might be used for putting up fruits and vegetables—

canned, preserved, or dried. Clean bottles can be used for bottling fruit juices and catsup.

In the face of the shortage of tin, and enormous demand for cans for commercial canning, it is true conservation to salvage these containers, which cost precious material and labor, and re-distribute them to women who can use them for storing food. America is inspired by a desire to serve, and the suggestion from a leader will start this work. The collection and distribution could be undertaken as a war activity by any organized unit in the community, such as the Council of National Defense, a missionary society or a local representative of the Federal Food Administrator.

A WHEATLESS LOAF

The following recipe developed in the experimental kitchen of the United States Department of Agriculture and the United States Food Administration is soon to be published by the Office of Home Economics on a new food card which carries directions for making a half wheat loaf, a one-fourth wheat loaf, and a wheatless loaf.

The directions for making the wheatless bread are as follows:

A LOAF OF BREAD USING NO WHEAT FLOUR

All of these	*Use* *With one of these*	and	*One of these*
1. 1¾ cups liquid. 1 tablespoon corn sirup. ¼ cake yeast. 2 teaspoons salt. 1 whole egg.	2. 3¾ cups barley. 2¾ cups ground rolled oats.		3. 2½ cups corn flour. 2⅛ cups rice flour 2¾ cups sweet potaot flour. 2⅛ cups (scant) tapioca flour.

Make a sponge of materials under 1 (except egg) and one-half of ingredients used from 2 and 3. Sponge should stand in warm place until very light, at least two hours. Work in balance of substitute mixture when sponge is light. Work in egg beaten slightly. Shape into loaf. Place in pan. Brush top of loaf with melted fat. Let rise to double bulk and bake in loaf pan in hot oven for one hour.

SHALL WE BUY MILK OR CREAM?

In most places a half-pint of cream (almost ½ pound) sells for the same price as a quart (about 2 pounds) of milk. Which is more economical for the housekeeper? Which is more economical from the standpoint of national economy?

Both milk and cream vary in composition but roughly calculated the nutrients contained in them are about as follows:

In 1 quart of milk	*In ½ pint of cream*
As much protein as in 5 eggs	As much protein as in 1 egg
2½ level tablespoonfuls of fat	3 level tablespoonfuls of fat
3 level tablespoonfuls of sugar	½ level tablespoonful of sugar

In putting her money into a quart of milk rather than into a half-pint of cream the housekeeper buys ½ tablespoonful less fat; 2½ level tablespoonfuls more sugar; as much more protein as there is in 4 eggs.

Looking at the matter from the standpoint of national economy, particularly of labor, we find that it takes more energy to deliver a quart of milk than a half-pint of cream but that the use of milk saves the labor of separating and of finding uses at the creamery for the precious food substances contained in the skim milk.

ANOTHER METHOD OF STERILIZING GLASSWARE[1]

The California State new law providing for the sterrilization of common drinking receptacles provokes many inquiries regarding approved methods of steriilization. Many requests, particularly, are received for information regarding a method which may be used in place of sterilizing with boiling water or steam. Following is such a method as prescribed by the State Board of Health.

"The drinking receptacles shall be placed in a wire basket and immersed completely for a period of five minutes in a solution of not less than one pound of lye or caustic soda to each 2½ gallons of water, the lye being of standard commercial quality and containing not less than 96 per cent of sodium hydrate. When practicable, the lye solution should be used hot. All traces of the lye should be removed by thorough rinsing or washing."

Needless to state, the individual paper cup is recognized as complying with the provisions of the act.

[1]Calif. State Board of Health Mo. Bul., Vol. 13 (Feb., 1918), No. 8, p. 357.

EDITORIAL

The American Home Economics Association at its Annual Meeting at Hull House and the University of Chicago, June 27–29, reaffirmed its platform, in the following statement.

It is voted to work through the coming year, individually and collectively, in full coöperation with government agencies, to forward the following causes:

I. To establish and maintain instruction in the elements of home management, including the principles of nutrition, the proper choice and preparation of foods, thrift and economy in the use of clothing, fuel, and other household essentials, to all girls in the higher elementary grades and in the high schools, at least in the first two years.

II. Inasmuch as the administration of the household is of common interest and importance to both men and women, and the maintenance of the individual away from home also demands an understanding of these matters, to urge appropriate instruction for boys as well, as far as practicable, in matters relative to the welfare and maintenance of the individual and of the home.

III. To promote the establishment of departments of home economics in normal schools and colleges and of courses dealing with questions of public health, nutrition, and thrift, open to all students, both men and women.

IV. To coöperate in the extension of home economics instruction in the conservation of food, fuel, clothing, and other household essentials to housewives desiring such assistance.

V. To further, individually and collectively, the campaign for child welfare through the establishment of courses of instruction in child care and child welfare in schools and colleges, and through active coöperation with the Children's Bureau.

VI. To aid all community enterprises which extend the ideals of Home Economics or promote the improvement and maintenance of health.

VII. To support and maintain the Journal of Home Economics, as a means of extending knowledge of the subject and of promoting thought and discussion.

VIII. To promote research by encouraging and aiding investigations and research in universities, and by meetings local and national, in order that knowledge may be increased, and public opinion informed, and advancement made secure by legislative enactment.

IX. To give active support to all legislation, state and federal, which aims to secure any of the ends which we are working to promote.

X. For the above purpose, rally all the members of the national Association, to stimulate local and state associations to increased endeavor in these directions, and to ask for the coöperation of other existing volunteer agencies now engaged in related movements such as: The Federation of Women's Clubs, the Red Cross, Social Service Organizations, Public Health Nursing Associations.

The Council of the Association is hereby authorized and empowered to take appropriate measures to forward this program.

The United States Child Labor Law Unconstitutional. "If there is any matter upon which civilized countries have agreed—far more unanimously than they have with regard to intoxicants and some other matters over which this country is now emotionally aroused—it is the evil of premature and excessive child labor. It is not for this court to pronounce when prohibition is necessary to regulation, if it ever may be necessary. . . . to say that it [prohibition] is permissible as against strong drink, but not as against the product of ruined lives."

This is the language of Justice Holmes who gave the dissenting opinion in the case of Dagenhart vs. Hammer. Three justices concurred in his opinion. But the majority—five—held that, to quote the language of Justice Day, "The necessary effect of this Act is, by means of a prohibition against the movement in interstate commerce of ordinary commercial commodities, to regulate the hours of labor of children in factories and mines within the States, a purely state authority, and [the act] is, therefore, unconstitutional."

The court was unanimous in its recognition of the need which the Child Labor Act sought to meet, but the Act of September 1, 1916, by which Congress and the President sought to accomplish this end, they found to be unconstitutional. This Act went into effect on September 1, 1917. The age and hour standards which it laid down were not so high as the standards of a number of states. They were practically identical with a larger number; and higher than the standards of some states. The children had enjoyed the benefits of this law for nine

months when it was declared unconstitutional by the Supreme Court on June 3. During that period the value of the Act was demonstrated. It proved that coöperation between state and federal enforcing agencies was possible, and mutually advantageous; it showed that with federal backing state laws would be better enforced, and it had taken the children out of mills and mines in those states in which the standards were dangerously low.

Various plans are being suggested to meet the present emergency. Those who believe that the tradition, established by Chief Justice Marshal a century ago, that the Courts may declare laws passed by Congress and approved by the President unconstitutional, is an unnecessary extension of our check and balance system, are advocating a constitutional amendment expressly taking from the Supreme Court this power. Some want to follow the course taken when the Income Tax was declared unconstitutional. It will be remembered that eventually an amendment was passed specifically giving Congress the power to tax incomes. So now some feel that an amendment should be passed giving Congress new general powers which would enable it to directly regulate or prohibit child labor. Others, and especially those who are looking for immediate results, think that a new measure can be prepared which will meet the objections the Supreme Court found in the one just declared unconstitutional.

At this time when the young men of the country are being summoned by the nation for the defense of the nation and the world, when railroads and food and fuel are subjects of national legislation, when we are becoming accustomed to thinking and acting together as a nation, we shall surely be able to find some way of giving national protection to the children of the country.

BOOKS AND LITERATURE

Any book or periodical mentioned in this department may be obtained through the JOURNAL OF HOME ECONOMICS if the Journal price is listed.

Everyday Foods in War Time. By MARY SWARTZ ROSE, New York: The Macmillan Company, 1918, pp. 117. $0.80. By mail of the Journal, $0.88.

The publication of this little book, showing how to be patriotic and still live on one's income without impairment of health, is very timely. It is written in Mrs. Rose's characteristic style, giving scientific information in a simple and interesting way. It is full of material that will enable the housewife to solve the present food problems for herself.

The book is a war message with chapters on the four foods to be conserved, and has an appendix containing a group of selected war time recipes. "The Milk Pitcher in the Home," in the opening chapter, treats of the indispensable food value of milk in the diet, with many illustrations and suggestions for its use to the best advantage in the daily meals.

The teacher of domestic science will find the book valuable in connection with the practical use of all the war time substitutes, but especially in her work on relative food values. The nutritive food values of substitutes and their relative cost is strikingly shown by a series of "score" tables of the staple foods. In the closing pages on "Being Economical and Patriotic," the great necessity of feeding our people at home the most nutritious of these substitutes, while sending such food as can be exported to the men at the front, is made vivid.

Some one has said "We're learning how to save the shilling, and when the armies cease their drilling, the lesson will abide." Certainly the knowledge of food to be gained from this little book of Dr. Rose's should and will abide.

ANNA U. SHEPARD,
New York Public Schools.

Chemistry of Food and Nutrition. By HENRY C. SHERMAN, Ph.D. Second edition, rewritten and enlarged. New York: The Macmillan Co., 1918, pp. xiv + 454. $2.00. By mail of the Journal, $2.15.

The author of this book is well and favorably known as a teacher and investigator of the problems of nutrition. Accordingly a student of home economics may gain some conception of the value of the new edition from the reviewer's assurance that it has been rewritten in the clear and unusually logical style that characterizes Professor Sherman's publications.

Several kinds of information are especially sought at the present time by the increasing number of persons who wish to familiarize themselves with the criteria of adequate nutrition. There is a demand for a clear exposition of the essential facts which modern research, especially within the past ten years, has contributed to the chemistry of foods and the physiology of diet. Amino-acids, phosphatids, vitamins, metabolism, lipoids, antineuritic and antiscorbutic foods, dietary standards—these are some of the expressions that even the intelligent layman is becoming more eager to understand. They are interpreted in a lucid way in Sherman's volume.

Again, students of the subject are interested to learn something of the history of the newer conceptions in the science of nutrition, and to gain an appreciation of the nature and sources of the evidence upon which these views are based. The author has succeeded with unusual skill in presenting the evolution of present-day conclusions in the light of such experimental facts as have prompted them. As an illustration of topics presented with an emphasis hitherto unusual in text-books of physiology, the chapters on the rôle of inorganic nutrients, on the antineuritic,

antiscorbutic, and growth-promoting properties of foods, and on the economic use of foods may be cited. The work of American investigators has received a due share of consideration. Finally, the need of detailed information regarding the composition of foods presented for ready reference is also recognized in Professor Sherman's book which is likely to become a *vade mecum* for the professional readers of this JOURNAL.

LAFAYETTE B. MENDEL,
Yale University.

Health First. The Fine Art of Living. By HENRY DWIGHT CHAPIN, M.D., Professor of Medicine (Pediatric Department) at the New York Postgraduate Medical School and Hospital. New York: The Century Company, 1917, pp. 221. $1.50. By mail of the Journal, $1.60.

The development of the Safety First movement has served to decrease the disabilities incidental to industrial life. The transference of attention to preventive measures in place of therapeutic agencies represents an advance in modern thought. Accentuating life and health instead of disease and death conduces to a more normal state of mind.

Chapin has aimed to present a book dealing with "First Aid to the Well." He applies the common knowledge of the laws of health, that should be possessed by every intelligent person, in such a manner as to point out the possibilities of applied hygiene as a means to the maintenance and conservation of health.

The author covers not merely the traditional health rules applying to the body, and most usually referred to infancy and childhood, but he considers the inter-relation of health and education as well as the moral influences which play a part in developing and fostering health and happiness. Chapters are reserved for consideration of the "Health For The Middle-Aged" and "Health For The Old."

The spirit of the book is wholesome; the style is simple, clear, and stimulating of interest and thought. The essentials of modern day methods of protecting the sound body against the attacks of deteriorating influences are expounded as part of an everyday gospel of living. The needs of life are covered "from the womb to the tomb."

The little volume merits a cordial reception in the home economics world because it is rational, sound, constructive, without being tiresome or burdened with confusing technical terms. It is a book that recognizes the limitations of the normal mind in its search for the rules of health. "Health First" is an excellent book for the laymen.

IRA S. WILE, M.D.

Our Schools in War Time and After. By Arthur D. DEAN. Boston: Ginn and Company, 918, pp. 335. $1.25.

Teeming with enthusiastic appreciation of the patriotic service that girls and boys can render, this book is full of stimulation for those who recognize the new responsibilities of the school. Inspiring accounts of what has been done, and the pictures of possible future re-adjustments within the school, make fascinating reading that will strengthen the teacher's resolve to respond to the demands of the time in every way possible and to make that response a means of development for the child. The chapters on "Bringing the War into the Schools," "The Opportunities for Manual and Household Arts," and "Red Cross and Community Work," treat very directly of the problems of the teachers of home economics and raise interesting questions that all will meet during the period of the war and after. Mr. Dean feels that already the answer has been made in part by the introduction of live problems into the school and by the reaching out into the community from the school.

CARRIE ALBERTA LYFORD.

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NEWS FROM THE FIELD

Saving in Hotels. The release of the hotels on August 1 from their pledge to use no wheat has brought out the following results of their coöperation with the Food Administration: It is estimated that hotels, restaurants, clubs, and dining cars of the country have saved, from October 1, 1917, to August 1, 1918, between 175,000,000 and 200,000,000 pounds of wheat and its products, as well as 150,000,000 pounds of meats and 50,000,000 pounds of sugar. The educational value of their conservation efforts cannot be computed. Many people first received the food saving message while traveling on dining cars or living in hotels, and carried the news home with them.

A Course for Health Instructors will be established this fall by the Wisconsin Anti-Tuberculosis Association at Milwaukee, Wis. This course, like the new medical science will stress preventive measures. It is a direct outgrowth of war conditions in response to the call for trained workers to supplement the nurses and physicians who are being called at this time in great numbers for overseas service.

The home economics teacher, scientifically trained, experienced in teaching, already familiar with the relation of food to rules of health and their application, is especially well adapted to serve in this new field, where proper nourishment is so important a factor both in combating and in building up resistance to disease.

The course, open to normal school and college graduates, will hold its first class in September, under the supervision of Dr. E. V. Brumbaugh.

The course will include fundamental principles of health administration; social service; rural health inspection and its problems; first aid; health games and corrective exercises; propaganda; elementary psychiatry; foods and food values; elementary anatomy and psychology.

The South Carolina Federation of Colored Women's Clubs has put up 20,790 quarts of canned fruits and vegetables. At the eighth annual session in Orangeburg, the Federation declared its support of the Food Administration and formed a Department of Food Conservation. The Federation will also appoint women to look after the food work among colored people of the entire state, which has been divided into seven districts, one person having charge of a district.

War Kitchen for Southern Agents. A war kitchen established in New Orleans last August has led to the equipment of several hundred home demonstration kitchens in other parts of the South. They may be found in 78 of the 87 cities where home demonstration work has been introduced, Houston, Tex., having 8 of them. Out in the counties, in the small towns and county seats, rooms in courthouses, schoolhouses, and various public buildings have been converted into food centers for the use of home demonstration agents. State agents in Arkansas and Mississippi report that there are demonstration kitchens established in more than half the counties in each of these States.

A Canadian University Course in Household Science. McGill University has established a four year course in household science leading to the degree of Bachelor of Household Science (B.H.S.). The first two years are to be spent in Montreal, the last two at Macdonald College. The work of the first and second

years will coincide with that of the corresponding years in the arts and science courses—a foundation in the sciences being prescribed. In the third and fourth years students will receive further instruction in the sciences with special reference to their household applications and will be taught the technical work of household science, at the same time continuing the study of English and economics.

Indian Squaws Organize to Study Foods. Indian women on the Indian reservation near Syracuse, N. Y., have organized a study class under the leadership of the county home demonstration agent of the United States Department of Agriculture and the State College of Agriculture. This is the outcome of a demonstration of canning and war cooking given recently by the agent at the reservation. The new organization will study foods and later on the women will receive instruction in sewing.

Farm Home Study Tours. Farm home study tours have been arranged in Yamhill County, Ore. by the home demonstration agent and the county agricultural agent to encourage better country homes, lighting, water systems, labor savers, interior arrangement, and decorations, sanitation, and conservation. The tours are made by automobile, five or six farm homes being visited each day. As many as 150 farm women and men have gone on one of these tours. Short talks are made at each stop by the agents, and the host and hostess are introduced and give briefly the method and cost of installing the particular convenience under consideration at that place.

Notes. The Trustees of Pratt Institute, Brooklyn, New York, offer for 1918–19 three scholarships to daughters and wives of army officers, in household science, household arts, and institutional work. The latter is a one year course; the others are for two years.

A transient hotel for girls arriving in Washington to do government work will be opened by the Young Women's Christian Association at North Capitol and E Streets, a few blocks from the Union Station. It will accommodate 150 girls and will be available only for short periods while a girl is becoming acquainted with her surroundings and until she can secure permanent quarters elsewhere.

Vacation Homes which will accommodate 250 girls employed by the Government in Washington were opened by the Young Women's Christian Association on July 15 at Silver Springs and the Georgetown Preparatory School. The houses are especially for the use of girls whose homes are too distant for them to return for vacations.

By July 1, of the many applicants who had responded to the Government's call for student nurses to enter training schools to be established in the Base Hospitals of cantonments 300 had been accepted. Miss Annie Goodrich, formerly of Simmons College is Superintendent of the Army School of Nursing.

The dining car services of the country have taken the open sugar bowl from their tables and limited service to patrons to two half-lumps or one teaspoonful of granulated sugar for every meal. This keeps safely within the two pounds per person per month ration, allowing part for preparation of food.

Montana's legislature has created a division of child welfare to be under the supervision of the State Board of Health. This is the fifth such division in the country, the others being in New York, New Jersey, Pennsylvania, and Kansas. Important powers were added to the state health board, and valuable regulations affecting the work of public health and school nurses were passed.